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OF PLANT PROTECTION

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DISCOVERIES AND CURRENT EVENTS *

Argentine Republic: The ' Dirección de Sanidad Vegetal ' of the Ministry of Agriculture. Organisation and Functions (1).

By ' Acuerdo de Ministros ' of 21 January, 1935, the ' División de Defensa Agrícola ' is separated from the ' Dirección de Defensa Agrícola y Sanidad Vegetal ' and transformed into the new ' Dirección de Sanidad Vegetal '.

The ' Dirección de Sanidad Vegetal ' thus established is entrusted with the application of the Law No. 4863 on the sanitary protection of plants within the territory of the Republic and for the agricultural products exported; and the Law No. 4084 on sanitary inspection for plants and seeds imported.

By Ministerial Resolution of 8 February, 1935, approval is given to the internal organisation of the ' Dirección de Sanidad Vegetal ' which is integrated in the following form: ' División de Fitopatología ' (Phytopathological Division); ' División de Zoología Agrícola ' (Agricultural Zoology Division); ' División de Analisis y Clasificación Comercial de Semillas ' (Division for the Analysis and Commercial Classification of Seeds); ' División de Fiscalización Sanitaria Vegetal ' (Division of Sanitary Inspection of Plants); ' Oficinas Sanitarias de Importación y Exportación de Plantas ' (Sanitary Offices of Plant Imports and Exports); ' Sección Reconocimiento y Control Sanitario ' (Section of Verification and Sanitary Control); ' Fábrica Oficial de Insecticidas y Fungicidas ' (Official Factory for Insecticides and Fungicides); ' Estación de Cuarentena de Plantas ' (Plant Quarantine Station); ' Secretaría General y Delegación Administrativa ' (General Secretariat and Administrative Delegation).

The services have been constituted as follows:—

Investigation Services. — In the charge of the Divisions of Phytopathology, Agricultural Zoology, and Analysis and Commercial Classification of Seeds.

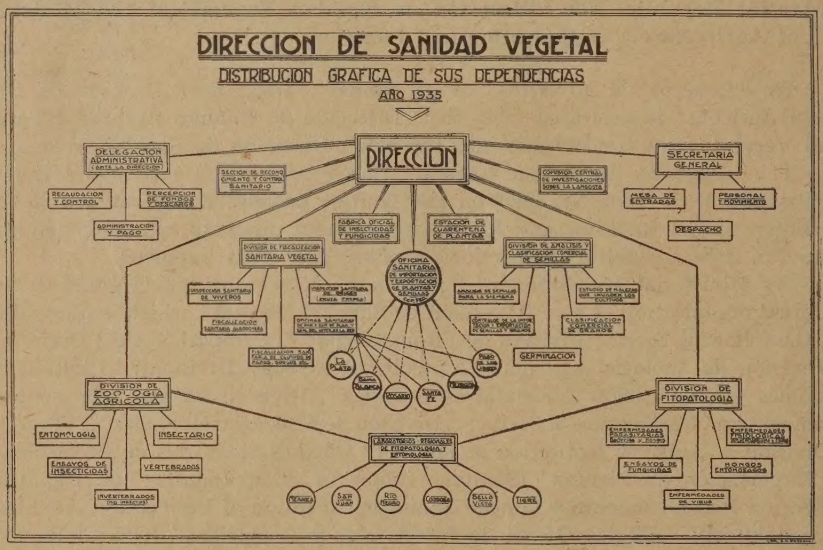
The Plant Pathology laboratories of Bella Vista (Corrientes), Córdoba, Mendoza, San Juan, Tigre, and Crnel. Juan F. Gómez (Río Negro) functions under the supervision of the Divisions of Phytopathology and Agricultural Zoology.

* Under this and the next heading the countries are arranged in French alphabetical order.

(1) Communication from the official correspondent of the Institute, Mr. Juan B. Marchionatto, Director of the ' Sanidad Vegetal ', Ministry of Agriculture, Buenos Aires.

Inspection Services. — In the charge of the Division of Sanitary Inspection of Plants and the Sanitary Offices for Plant Imports and Exports.

The following are dependent on the Sanitary Inspection of Plants: ' Servicio de Fiscalización de Viveros ' (Service of Sanitary Inspection of Nurseries); ' Servicio de Fiscalización Sanitaria Frutícola ' (Service of Sanitary Inspection of Fruits); ' Servicio de Fiscalización Sanitaria Algodonera ' (Service of Sanitary Inspection of Cotton); ' Servicio de Certificación de Semilla de Papa ' (Service of Certification of Potato Seed); ' Oficinas Sanitarias de Importación y Exportación de Plantas ' of Mendoza, Rosario, Santa Fé, and Bahía Blanca.



The Sanitary Office for Plant Imports and Exports of Buenos Aires functions as an organisation independent from the Division of Sanitary Inspection of Plants.

Services of Verification and Sanitary Control. — In the charge of the Section of Verification and Sanitary Control.

The following localities are the headquarters of the technical staff: Buenos Aires, Tigre, La Plata, San Nicolás, Paraná, Concordia, Rosario, Armstrong, Monte Caseros, Corrientes, Pindapoy, Córdoba, Mendoza, San Rafael, Colonia Alvear, San Juan, Tucumán, Jujuy, Catamarca, La Rioja, Cipolletti and Gral. Roca.

Auxiliary Services. — In the charge of the Official Factory for Insecticides and Fungicides of Tigre and the Plant Quarantine Station of José C. Paz.

The Official Factory for Insecticides and Fungicides of Tigre is entrusted with the preparation of these products and their distribution in the interior of the Republic by means of the ' Seccionales ' of the ' Defensa Agrícola '.

The Plant Quarantine Station, in addition to its special functions (cultivation of plants and seeds imported which should be kept under observation), possesses experimental fields for the work of the Divisions of Phytopathology and Agricultural Zoology.

The object of the investigation services is to study the diseases and parasites which attack plants and to determine the most suitable treatments for their eradication. Advice is also given to farmers on the agricultural value of seeds for sowing.

The inspection services supervise the entry of plant products at the ports and customs houses of the Republic in order to prevent the introduction of new pests of agriculture or diseases and inferior quality seeds; and permanently inspect the production of orchard, forest and ornamental plants so that these may be sold, free from pests and diseases, in all parts of the country.

The services for verification and sanitary control assemble all the data (geographical distribution, epoch of appearance, behaviour, damage, etc.) refering to agricultural pests and diseases and give advice on their eradication.

The ' Dirección de Sanidad Vegetal ' also carries out other accessory work: (*a*) establishes the conditions for the use of insecticides and fungicides which are found on sale and in the trade *; (*b*) gives advice on all affairs concerning the application of the laws and regulations on the sanitary condition of plants; (*c*) assembles and registers the phyto-sanitary legislation in the country and abroad.

Belgium : Outbreak of the Colorado Potato Beetle in the Country (1).

The Colorado potato beetle (*Leptinotarsa decemlineata*, Say) has suddenly appeared in Belgium during the course of this year.

Thirty outbreak centres of the insect were discovered simultaneously in different parts of the country. They were distributed as follows in the four provinces:—

Province of Namur	11	outbreak centres
» » Luxembourg	10	» »
» » Hainaut	8	» »
» » Limbourg	1	» »

10 outbreak centres were discovered during the month of July.
15 » » » » » » » August.
5 » » » » » » » September.

* The Ministry of Agriculture inspects these products through the intermediary of the Insecticide and Fungicide Commission (Decree of 9 November, 1934).

(1) Communication from Professor R. Mayné, Director of the Entomological Station of the State, Gembloux, Belgium.

All the outbreak centres are limited to a few potato plants grouped within a radius of a few metres. They all consist of larvae, pupae or adults originating from eggs laid during June, 1935.

The invasion of Belgium by the Colorado potato beetle must be attributed to an extensive swarming from South to North which occurred during the month of June last. The insects also invaded the Semois valley, the South and Centre of Hainaut, the North and South of the province of Namur. The outbreak centre discovered in the province of Limbourg must be attributed to the introduction of an insect by the railway.

The first outbreak centre was discovered on 13 July, 1935, at Furnaux, province of Namur, in a garden. It consisted of 15 potato plants on which were found 107 larvae in the second and third stages. The following two outbreak centre were discovered in the province of Hainaut on 21 September. They were formed solely by adults.

* * *

The invasion of Belgium by the Colorado potato beetle had been provided for.

In 1933, a Colorado Potato-Beetle Committee had been established at the Ministry of Agriculture under the direction of Mr. Van Orshoven, Director General. Thanks to this Committee, it was possible to take all urgent measures necessary for the eradication of the first outbreak centre and within 24 hours the danger of propagation was held in check.

The control of the Colorado potato beetle was entrusted to my direction. The means of control used were as follows:—

(1) Destruction of outbreak centres.
(2) Prophylactic treatment of neighbouring fields.
(3) Examination of potato crops.

(1) Destruction of outbreak centres. — After the larvae, adults and eggs had been collected by hand, the potato haulms were pulled up and treated with petrol on the spot. The soil is dug and sifted for three metres round the plants attacked and then sprayed with a mixture of kerosene and benzine at the rate of 5 litres per square metre.

(2) Prophylactic treatment. — Within a circle of 2 kilometres radius round the outbreak centres, all potato crops are treated by spraying with 1 kilo of diplumbic arsenate to 100 litres of water. In the case when there are no market garden crops in the district and when adequate water supply is difficult to obtain, the prophylactic treatment is carried out by dusting with calcium arsenate.

(3) Examination of potato crops. — Several gangs of scouts under the direction of agents of the Colorado Potato-Beetle Committee inspect potato crops in regions under suspicion. In the majority of villages, teachers with their pupils have examined the fields.

In addition, all Communal Administrations have been put on the alert. Maps and pamphlets have been distributed in great numbers for purposes of propaganda. Lectures have been given everywhere by agents and agronomical experts of the Colorado Potato Beetle Committee.

Eritrea: Locusts (1).

On 20 August, 1935, a dense swarm of reddish coloured locusts were reported in the neighbourhood of Anagullei, Residence of Barentù, Western Plain, originating from the South and flying North-East.

The swarm appeared to consist of Desert Locusts (*Schistocerca gregaria*).

No complaints have been received of damage to sown land.

* * *

During the month of September, 1935, no locusts have been reported in the Colony.

Mozambique: Locust Movements (*Nomadacris septemfasciata* and *Locusta migratoria migratorioides*) (2).

During the month of June, 1935, locust movements were rare in the province of Nyassa * though in the centre of the province of Zambezia * locust movements were much greater than in the past year. In the province of Sul do Save * the swarms were much larger than those observed in the two above mentioned provinces, although smaller than the swarms that invaded this province in 1934.

On the whole the situation has greatly improved compared to that in the past epoch, especially in the North and to a less degree in the South.

On the frontier and also in Zululand swarms continually crossed and re-crossed the border, following the direction of the winds.

The swarms that were observed in Chibuto came from Guijá and probably proceeded from the frontier regions of the Transvaal.

Other swarms have been observed originating from the regions of Panda and Vilanculos.

(1) Communication from the official correspondent of the Institute, Dr. Rolando Guidotti, Chief of the Agricultural Bureau of Eritrea, transmitted to the Institute by the Government of the Colony.

(2) Communication from Mr. Julio Gardé Alfaro Cardoso, Chief of the Entomological Section at Lourenço Marques, transmitted to the Institute by the Repartição Tecnica de Agricultura of the Colony.

* In this communication the nomenclature of the new administrative division has been adopted. In the future the former districts of Cabo Delegado, Nyassa and Mozambique will constitute the province of Nyassa. The districts of Tete and Quelimane will form the province of Zambezia. The former districts of Inhambane and Lourenço Marques will constitute the province of Sul do Save.

The swarms are continuously attacked by parasites, chiefly in the province of Zambezia.

In the province of Sul do Save dead locusts have been found attacked by a Coccobacillus.

Although the situation in general has improved it cannot be said that we shall be completely free from this plague next year. Various swarms will appear, chiefly of unknown origin, which in their search for breeding grounds will do much damage to property.

Southern Rhodesia: Locust Invasion, 1932-1935 (1).

Monthly Report No. 32. July, 1935.

The number of swarms of the Red Locust (*Nomadacris septemfasciata*, Serv.) in the Colony appears to have been augmented during June by invasion from Portuguese East Africa. All reports received have referred to the eastern half of the Colony.

The following districts are included, namely:— Darwin, Melsetter, Lomagundi, Makoni, Mazoe, Umtali, Victoria, Ndanga, Gutu, Chilimanzi and Mtoko. The swarms have varied in size from 'small' to 'large'. In one case, a swarm is reported to have taken three and a half hour's to pass overhead. No particular trend of movement is indicated.

Some damage to winter wheat is reported from the eastern midland districts.

No reports of disease have been received and all specimens submitted to the headquarter office have been healthy.

Rumania: Non-Existence of Wart Disease of Potatoes in the Country (2).

Up to the present Rumania is free from potato wart disease (*Synchytrium endobioticum*), so that tubers grown in the country may be imported elsewhere without fear of contamination. Moreover, consignments intended for export will be inspected by the inspectors of the Agronomical Research Institute of Rumania and will be accompanied by health certificates established in conformity with the model annexed to the International Convention for Plant Protection, signed in Rome on 16 April, 1929.

(1) Communication from the official correspondent of the Institute, Mr. Rupert W. Jack, F. E. S., Chief Entomologist, Agricultural Laboratory, Department of Agriculture, Salisbury, Southern Rhodesia.

(2) Communication from the official correspondent of the Institute, Professor Dr. Tr. Săvulescu, Chief of the Phytopathological Section of the Agronomical Research Institute of Rumania, Bucarest.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Argentine Republic. — The Decree No. 59.840 of 30 April, 1935, declares as pests of agriculture the following birds belonging to the family Psittacidae, commonly known by the names of 'loros': 'loro hablador' (*Amazona aestiva xanthopteryx*), 'loro choclero' (*Pionus maximiliani lacerus*), 'calacate' or 'loro de los palos' (*Thectocercus acuticaudatus*), 'loro barranquero' (*Cyano lyseus patagonus* and *C. patagonus andinus*), and 'cotorra catita' (*Myopsitta monacha*).

The destruction of the 'loro hablador' and 'loro choclero' will be carried out in the provinces of La Rioja, Catamarca and Tucumán and that of the 'calacate' or 'loro de los palos' and 'cotorra catita' in the same provinces and also in the provinces in the centre of the country.

The destruction of the 'loro barranquero', in both its forms, will only be carried out in parts of the country where it is ascertained that it has caused damage.

The 'Dirección de Sanidad Vegetal' will give the necessary instructions for the destruction of these species and will take whatever measures it considers advisable in order to put into effect the provisions contained in this Decree. (*Boletín Oficial de la República Argentina*, Buenos Aires, 13 de septiembre de 1935, año XLIII, núm. 12.366, págs. 483 y 484).

Belgium. — By a Circular of 19 April, 1935, the importation of tomatoes and aubergines has been regulated from the phytosanitary point of view.

Detailed prescriptions are given concerning the consignments coming from France in view of the presence of Colorado beetle (*Doryphora* [*Leptinotarsa*] *decemlineata*) in that country.

With regard to consignments coming from countries other than France, a certificate is required issued by the Plant Protection Service of the country of origin certifying that they come from a locality at least 20 kilometres distant from any centre of infestation by Colorado beetle. Importation should take place through certain customs posts a list of which is given. Consignments which are not accompanied by a certificate corresponding with the established rules will be returned, except in the case where they have been recognised as free from all parasites following inspection carried out by an official of the Belgian Plant Protection Service.

Special and less strict prescriptions are applied to consignments coming from the Netherlands.

Consignments passing through the country by railway are not subject to the above formalities. (*Deutsches Handels-Archiv*, Berlin 1935, 89. Jahrg., 2. Augustheft, S. 2639-2640).

*** By another Circular of the same date the importation of potatoes is regulated.

The importation of tubers and plants of potatoes produced in France or coming from France is forbidden. An exception is made for the regions bordering on the Franco-Belgian frontier.

The importation of potatoes coming from countries other than France is permitted on condition that the consignments are accompanied by a certificate issued by the Plant Protection Service of the country of origin indicating the exact place of origin and certifying that this place and also the place of expedition are at least 20 kilometres distant from any centre of infestation by Colorado beetle and wart disease of potato (*Synchytrium endobioticum*). With regard to Colorado beetle this prescription is strictly enforced; in respect of wart disease exceptions are admitted under certain conditions.

The transit of potatoes by railway is permitted without formalities of a phytosanitary order. (*Ibid.*, S. 2640-2642).

*** By Ministerial Decree of 26 May, 1935, trade in asparagus, cauliflowers, tomatoes, strawberries and witloof (chicory) has been regulated with regard to the quality of the products. In respect of the sanitary condition, it is required that the products should correspond to the following conditions:—

Asparagus: free from parasites;

Cauliflowers: free from rot;

Tomatoes: free from bacterial diseases and blight;

Strawberries: free from rot and damage caused by slugs, insects and mites;

Witloof (chicory): free from worms and rot. (*Ibid.*, S. 2644-2645).

Danzig. — A Decree of 15 July, 1935, regulates the transit of potatoes, plants, seeds and fruits.

It is also established that consignments of seeds not exceeding 100 g. in weight, also seeds intended for scientific establishments and for agricultural tests, are exempted from the prescription relative to the colouring matter to be added to these seeds, also the certificate of cleanliness. (*Nachrichtenblatt für den Deutschen Pflanzenschutzdienst*, Berlin, Anfang September 1935, 15. Jahrg., Nr. 9, S. 87).

Greece (1). — By Decree of 28 March, 1935, modifying the Decree of 10 January, 1934 [see this *Bulletin*, 1934, No. 4, p. 82], the territory of the commune of Rapsani is declared infested with grape phylloxera (*Phylloxera vastatrix*) and the province of Agyia is declared free from grape phylloxera.

(1) According to a communication from the official correspondent of the Institute, Mr. A. Ayoutantis, Chief of the Phytopathological Section, Ministry of Agriculture, Athens, Greece.

*** By Decree of 19 September, 1935, the department of Trikkala, up to the present suspected of being infested with grape phylloxera, is now declared an infested region.

Leeward Islands. — By Proclamation of 8 March, 1935, two lists have been established, one indicating the plant products the introduction of which is strictly prohibited and the other the products which are only admitted under certain conditions. (*Deutsches Handels-Archiv*, Berlin 1935, 89. Jahrg., 2. Augustheft, S. 2697–2698).

Italy. — By Ministerial Decree of 31 July, 1935, and by virtue of the Law No. 987 of 18 June, 1931, containing measures for the protection of cultivated plants and agricultural products [see this *Bulletin*, 1931, No. 9, p. 166] a viticultural Syndicate has been established in the province of Littoria. (*Bollettino Ufficiale del Ministero dell'Agricoltura e delle Foreste*, Roma, 10 settembre 1935, anno VII, n. 25, pp. 3975-3976).

*** By Ministerial Decree of 10 August, 1935, and by virtue of the Royal Decree-Law No. 1734 of 12 August, 1927, containing measures for the development of olive-growing, also the Law No. 987 of 18 June, 1931, a compulsory Syndicate has been established for the improvement and development of olive-growing in the province of Littoria.

The annual contribution payable by each member of the Syndicate cannot exceed 10 centesimi per tree in bearing. (*Ibid.*, pp. 4000-4001).

*** By Ministerial Decree of 13 August, 1935, a compulsory Syndicate has been established for the improvement and development of olive-growing in the province of Benevento. (*Ibid.*, pp. 4003-4004).

*** By Ministerial Decree of 26 August, 1935, the commune of Monsampolo del Tronto, in the province of Ascoli Piceno, has been declared infested by grape phylloxera. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 5 settembre 1935, anno 76°, n. 207, p. 4408).

*** By Ministerial Decree of 31 August, 1935, and with a view to protecting agricultural crops in the region of Muratella-Maccarese, Rome, the hunting and capture of sparrows is authorised up to 31 December, 1935. (*Ibid.*, 11 settembre 1935, n. 212, p. 4469).

*** By Ministerial Decree of 31 August, 1935, the communes of Avezzano, Cerchio and Pescina, in the province of Aquila, have been declared infested by grape phylloxera. (*Bollettino Ufficiale del Ministero dell'Agricoltura e delle Foreste*, 21 settembre 1935, n. 27, p. 4335).

*** By Ministerial Decree of 4 September, 1935, the communes of Castelfranci, Mirabello Eclano, and Paternopoli, in the province of Avellino, have been declared infested by grape phylloxera. (*Gazzetta Ufficiale del Regno d'Italia*, 16 settembre 1935, n. 216, p. 4516).

*** By Ministerial Decree of 9 September, 1935, the communes of Massa d'Albe, Collarmele, Luco dei Marsi, Trasacco, and Collelongo, in the province of Aquila, are declared infested with grape phylloxera. (*Ibid.*, 17 settembre 1935, n. 217, p. 4521).

*** By Ministerial Decree of 24 September, 1935, the commune of Sant'Angelo Romano, in the province of Rome, has been declared infested with grape phylloxera. (*Ibid.*, 3 ottobre 1935, n. 231, p. 4820).

*** By Ministerial Decree of 30 September, 1935, the communes of Lecce de' Marsi and Ortona de' Marsi, in the province of Aquila, are declared infested with grape phylloxera. (*Ibid.*, 16 ottobre 1935, n. 242, p. 5021).

*** By Ministerial Decree of 30 September, 1935, the Royal Observatory for plant diseases of Reggio Calabria has been abolished. By the same Decree the provinces of Reggio Calabria, Consenza and Catanzaro have been included in the circumscription of the Royal Observatory of Portici. (*Ibid.*, 23 ottobre 1935, n. 248, p. 5119).

Morocco (French Zone). — By Vizier's Decree of 12 July, 1935 (10 rebia II 1354), Article 1, paragraph 2 of the Vizier's Decree of 31 August, 1932 (28 rebia II 1351), regulating the importation into Morocco of plants or parts of plants liable to introduce European corn borer (*Pyrausta nubilalis*) [see this *Bulletin*, 1932, No. 11, p. 187], is modified as follows:—

'Article 1. — The importation into and transit through the French Zone of the Sherifian Empire of the following are forbidden:—

'(1) . . . . . .

'(2) Any part or residue of plants of hemp (*Cannabis sativa* L. = *C. indica* Lam.) with the exception of seeds and fibre, also inflorescences free from all portions of the stalk'. (Empire Chérifien. Protectorat de la République française au Maroc. *Bulletin Officiel*, Rabat, 26 juillet 1935, XXIVe année, nº 1187, p. 840-841).

*** By Decree of 17 September, 1935, owners and tenants of maize fields situated on the borders of the Oued Sous, on the territory of certain sections of the bureau for native affairs of the suburbs of Agadir, are authorised to destroy wild boars on their land at all times and by all means, except by fire. (*Ibid.*, 27 septembre 1935, nº 1196, p. 1127).

Peru. — By Ministerial Resolution No. 388 of 27 June, 1935, approval is given to the regulation contained in the Supreme Resolution No. 73 by which thrips of fruit trees is declared a pest of national agriculture [see this *Bulletin*, 1935, No. 10, pp. 230-231]. (*La Vida Agrícola*, Lima (Perú), agosto 1º de 1935, vol. XII, no. 141, págs. 657 y 658).

*** By Ministerial Resolution No. 390 of 27 June, 1935, approval is given to the regulation contained in the Supreme Resolution No. 74 by which the 'cochinilla de los troncos de la parra' (*Phenacoccus* sp.) is declared a pest of national agriculture [see this *Bulletin*, 1935, No. 10, p. 231]. (*Ibid.*, págs. 656 y 657).

*** By Ministerial Resolution No. 389 of 27 June, 1935, approval is given to the regulation contained in the Supreme Resolution No. 75 by which 'quereza redonda' (*Selenaspidus articulatus*) and the scale insect of lemon trees (*Aonidia* sp.) are declared pests of national agriculture [see this *Bulletin*, 1935, No. 10, p. 231]. (*Ibid.*, págs. 658 y 659).

Dominican Republic. — By Law No. 906 of 23 May, 1935, Article 2 of the Law No. 938 of 23 May, 1928, which prohibits the introduction into the country of plants, parts of plants and seeds, is modified thus:—

'Art. 2. — Such plant products may be introduced exclusively by the ports of Santo Domingo, San Pedro de Macorís, Barahona, and Puerto Plata'.

'Paragraph. — The Department of Agriculture will install in the said ports laboratories for investigation and chambers for disinfection in charge of certificated entomologists, and all the plant material indicated in Art. 1 [plants, parts of plants and seeds of every species intended for cultivation or sowing] will be detained in the customs until the laboratory determines their sanitary condition and the Secretary of State for Agriculture issues a permit to introduce them into the country, until this has taken place it will not be permitted to remove them from the customs'. (*Revista de Agricultura y Comercio*, Órgano oficial de la Secretaría de Estado de Agricultura y Trabajo, Santo Domingo, República Dominicana, julio de 1935, vol. XXVI, núm. 70, págs. 1929 y 1930).

U. S. S. R. — By Note of 12 September, 1935, the Chargé d'affaires of the U. S. S. R. at Rome has notified the Royal Ministry of Foreign Affairs of Italy that the Government of the U. S. S. R. adheres to the International Convention for Plant Protection signed in Rome on 16 April, 1929 [see this *Bulletin*, 1929, No. 4, pp. 50-55].

By the same Note it is communicated, according to the terms of Article 2 of the said Convention, that the following establishments are functioning in the U. S. S. R.: State Institute for Plant Protection at the Lenin Academy and the State Service for Plant Quarantine. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 27 settembre 1935, anno 76º, n. 226, p. 4744).

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[*Plasmopara viticola*, *Uncinula necator*, *Phoma cookei*, *Phoma flaccida* (?), *Polyporus* ? *fulvus*, *Ceratitis capitata*, *Cryptoblabes gnidiella*, *Laphygma exigua*, *Rhizotrogus* ? *sordescens*, *Phylloxera vastatrix*, *Pseudococcus citri*, *Aspidiotus hederae*, *Ceroplastes rusci*, in Morocco (French Zone)].

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advised have been studied and tested, over a period of many years at the Eidg. Versuchsanstalt für Obst-, Wein- und Gartenbau at Wädenswil. These methods are particularly adapted to conditions in Switzerland. An illustrated table, which may be detached and fixed to a wall, gives the succession of fungicidal and insecticidal treatments that should be applied during the year. The composition of the preparations and the method of use are indicated].

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B) Lois, règlements, ordonnances, arrêtés.
C) Déparasitation des produits agricoles.
D) Conclusions.
E) Annexes: 1° Tableau des produits fongicides et insecticides analysés et expérimentés à la Section de Phytopathologie de l'Institut de Recherches agronomiques de Roumanie.

2° Pulvérisateurs expérimentés par la Station des Machines agricoles de l'Institut de Recherches agronomiques de Roumanie.

3° Modèle de certificat phytopathologique délivré par l'Institut de Recherches agronomiques de Roumanie.

4° Modèle de certificat phytopathologique délivré par le Service officiel de Protection des Plantes du Ministère de l'Agriculture et des Domaines].

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NOTES

A Resolution of the Fourth International Technical and Chemical Congress of Agricultural Industries. — This Congress [see this *Bulletin*, 1935, No. 6, p. 148] adopted, *inter alia*, the following resolution: ' That an international organisation should be established for the study of the standardisation of fungicides and insecticides utilised for the protection of industrial plants '.

Resolutions relative to Applied Entomology and Plant Pathology, adopted by the Fourth International Vine and Wine Congress. — In respect of the control of pests and diseases of the vine, this Congress [see this *Bulletin*, 1935, No. 7, p. 172] has adopted, *inter alia*, the following resolutions:—

(1) That in the various vine-growing States the control of vine pest should be organised without delay, and that the necessary treatments should be made compulsory by the application of particularly strict regulations in common.

(2) That the sale of insecticides and fungicides should be regulated and their efficacy strictly controlled.

(3) That, on account of the useful results obtained in vineyards by the application of treatments discovered in laboratories for the control of vine parasites, the means of working available to viticultural research stations should be greatly increased.

(4) That it would be advisable to organise, in all countries, alarm services against the parasites, based on an approved system, and which may be discussed and selected following the work of a Commission established for this purpose. The regional

stations or observatories for agricultural meteorology should be developed and their reports should be made public by radio whenever possible.

(5) That in addition to the copper mixtures at present recommended as an excellent means of control of downy mildew of the vine [*Plasmopara viticola*], all attempts to improve on them should be encouraged. The other chemical methods, based on combinations of copper or copper fixation, should be made the object of further experiments before being recommended to vine-growers. For this reason, it would be advisable to recommend the official centres of viticultural research to include these experiments in their scheme of work.

(6) That researches should be carried out methodically in the various vine-growing countries, according to a previously established programme, with a view to determining particularly the reasons for vines dying when budded on American stocks, also the reasons for their sensitiveness to different diseases.

A Correction. — Our official correspondent Mr. L. D. Galloway, M. A., Imperial Mycologist, Imperial Institute of Agricultural Research, Pusa, Bihar, India has informed us that owing to an error in the original text the following correction should be made on page 176 of the *Bulletin*.

The correct reading is:—

Saccharum officinarum	*Helminthosporium* sp. causing footrot of seedings.
	Stinking rot caused by *Bacterium pyocyaneum* var. *saccharum*.
Elettaria cardamomum	*Phyllosticta* sp., etc., etc.

Prof. ALESSANDRO BRIZI, *Segretario generale dell'Istituto, Direttore responsabile.*